

# ABSTRACT

A method of creating a decision engine including a Bayesian network. The method includes retrieving data from a client database and forming a focus database; applying a set of initial rules to the focus database to form at least two nodes; applying a first learning process to determine a set of arcs to be applied between the at least two nodes; applying a second learning process to determine a set of states to be applied within each node; applying a third learning process to determine a set of probabilities applicable to the states learned in the second learning process; and applying a fourth learning process to update a structure of the at least two nodes, the set of arcs, the set of states within each node, and the set of probabilities for the states.